6974

WIRE DRAG

Diag'd. on Diag. Ch. No. 9198

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Wire Drag

Field No. EX-2400 *Office No.* H-6974

LOCALITY

State Alaska-Aleutian Islands

General locality Shemya Island

Locality Alcan Cove

1944

CHIEF OF PARTY

Roland D. Horne, Lieut. Comdr.

LIBRARY & ARCHIVES

DATE Jan. 10, 1946

B-1870-1 (1)

6974
WIRE DRAG

Form 537
Ed. Dec. 1930

REG. NO. H6974 WIRE DRAG

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. Ex. 2400'

REGISTER NO. H-6974 W.D.

State Alaska - Aleutian Is.

General locality ~~Near Islands, Aleutian Islands~~ Shemya I

Locality ~~Alcan Cove, Shemya Island~~

Scale 1:2,400 Date of survey June 14-21, 1944

Vessel Hydrographic Launches, Ship EXPLORER

Chief of Party Roland D. Horne, Lieut. Comdr.

Surveyed by G. R. Shelton, Lt. Comdr. + H.O. Fortin

Protracted by C. A. J. Pauw

Soundings penciled by C. A. J. Pauw

Soundings in ~~xxxxxx~~feet Drag depths in feet

Plane of reference MLLW

Subdivision of wire dragged areas by George R. Shelton

Inked by R.D. Goodrich

Verified by R.D. Goodrich

Instructions dated March 25, May 16, 19 44

Remarks: Smooth Sheet and Plotting by the Seattle Processing Office

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT TO ACCOMPANY

Ex.
HYDROGRAPHIC SHEET 2400

U.S.C. & G.S.S. EXPLORER Roland D. Horne, Comdg.

INSTRUCTIONS:

Project CS-218, dated March 25, 1944. Supplemental Instructions by Lieut. Comdr., C.M. Durgin, Project 10, Survey and Wire Drag of Alcan Cove and Approaches, dated May 16, 1944.

EQUIPMENT:

Two regular hydrographic launches from the EXPLORER were used to tow the drag with a motor whaleboat acting as tender. The drag was set out and picked up by the EXPLORER.

The standard wire drag was used. The ground wire was 3/16" stranded galvanized wire equipped with patent fieges. The toggles were aluminum and the buoys were of the latest design, all steel construction.

The tester was the standard type with regulation markings and a greased iron rod at the bottom for registering lift.

METHOD OF SURVEY:

The drag strips were plotted with dual launch control, each launch plotting independent positions on duplicate boat sheets. Most of the area was dragged to an effective depth of 30 feet or more. The channel to each of the piers was dragged to an effective depth of 34 feet or more. There were no groundings of any importance.

A one thousand foot drag with two hundred foot sections was used on "A", day all subsequent dragging was done with a six hundred foot drag with 100 foot sections, a 100 foot tow line and no toggles. Since the fixes were taken amidship of the launches 15 feet was added to the tow line

making the effective lenght of Low line 115 feet. Tests were taken as often as necessary to determine the lift of the drag.

There were several mooring buoys in the area dragged which complicated the dragging considerably. Most of these buoys were wrapped from two directions 180° apart. The drag was grounded on the buoy, the launches continued towing until the buoys formed a "V" at the buoy. Due to the scope of the buoy anchor cables the buoy would be towed a considerable distance by the drag. It is believed that the area in which the buoys are located can be considered covered. Depth at buoys 6-18 ft. deeper than effective depth of drag. Least depth less than effective depth is considered unlikely

H-7020 W.D. (1944)

Wire drag sheet No. 6938a was overlapped on the south end. No additional work is considered necessary in this area.

RECORDS:

All reducers have been entered and checked, the effective depth computed and checked and the depth diagram drawn and checked. All end launch and tender records have been copied into the guide launch records and copy checked. The guide launch records contain all the information necessary for the smooth plotting of this survey.

TIDAL NOTE:

Portable automatic tide gage on long pier, U.S. Army, Alcan Cove.
Latitude 52° 44.0' N. Longitude 174° 04.3' E. (Gannet datum).
Staff reading of MLLW is 5.04 feet.

Respectfully submitted,

George R. Shelton

George R. Shelton,
Lieut. Comdr., C&GS.

Approved and forwarded:

Roland D. Horne

Roland D. Horne, Lieut. Comdr.
Commanding Officer.

Statistics, wire drag sheet No. 2400 H6974 Aleutian Is Alaan Cove

Date	Letter	Volume	Drag length feet	Positions (Grids)	Miles Statute	Soundings
June 14, 1944.....	A	1	1000	56	2.0	------
June 15, 1944.....	B	1	600	7	0.3	3
June 16, 1944.....	C	1	600	47	2.0	4
June 17, 1944.....	D	1	600	35	1.5	16
June 20, 1944.....	E	2	600	42	2.0	10
June 21, 1944.....	F	2	600	35	1.0	2
Total.....				222	8.8	35

Dragged area 0.44 squ. stat. mi.

H-6974

Seattle Processing Office Notes

Projection-

The datum is USN (GANNET) 1934 assuming Station CHIC 1943, in Chichagof Harbor, as a recovery of the Navy astronomical station. The intersections of the Army grid are shown in red at 1,000 foot intervals. Topographic signals and shoreline are from T-6971b. before revision from air-photographs

Positions 19A to 28A-

In this strip it was evidently necessary to lift the drag over a mooring buoy near Lat. 52° 44!7 Long. 174° 04!6. Notes were omitted from the record books. The points at which this was done have been estimated. The position of the buoy is believed to have been on the drag line when at position 10A for the course of the guide launch is apparently deflected by the pull of some obstruction at that point. Because of this, a small split is shown at the buoy.

Position 53A, near Lat. 52° 44!6 Long. 174° 05'.

The drag strip has been ended at this point where the Guide Launch reversed (possibly to avoid outlying shoals). A minute and a half later the Guide Launch resumed its course to northeastward. The position of this resumption was not recorded. Very shortly afterwards the ~~launch~~ drag grounded. The course of drag after Pos. 53A is shown in pencil per boat sheet, excepting that a larger bight is shown in order to account for the total length of the drag. If this is accepted as inked by the Processing Office, a large open space will be left at the side of the dragged area.

Disregard. Clarified by field party and changed on smooth sheet. EES

The topography is taken from the best field sources available at that time. The breakwaters were subsequently extended, but were badly damaged by still later storms. The changes to the breakwaters were shown by the Washington Office compilation from photographs which was applied to T 6971b and to H-6975. These topographic changes do not appear on H-6974 as it leaves the Processing Office.

Penciled soundings and curves on the area depth sheet indicate depths on the preliminary chart (from 1945 survey), which are now shoaler than the dragged area of the 1944 survey. Pencilled depths and curves now deleted

H-6974 W.D.

Aleutian Islands- Shemya Island

Alcan Cove

Geographic Names Penciled on the Smooth Sheet

Bering Sea

Shemya Island

Alcan Cove

H-6974

Aleutian Islands - Shemya Island

Alcan Cove

Alcan Cove

Portable Automatic Gage
on long pier of U.S. Army

Latitude 52° 44!0 N

Longitude 174° 04.3 E

USN (GANNET) datum

Staff reading of MLLW ----- 5.04 feet

Respectfully submitted,

Edgar E. Smith

Edgar E. Smith
Cartographic Engineer
Seattle Processing Office

Approved and Forwarded,

F.B.T. Siems

F.B.T. Siems
Officer in Charge,
Seattle Processing Office

GEOGRAPHIC NAMES

Survey No. H6974
WIRE DRAG

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Alaska		(for	title)							1
Aleutian Islands		"	"							2
Shemya Island									U.S.G.B.	3
Alcan Cove		(also	location	of tide	staff)					4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

[illegible] in red approved
by L. Heck on 11/7/46

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H6974 WIRE DRAG

Records accompanying survey:

Boat sheets ..2..; sounding vols. .....; wire drag vols. .3...;

bomb vols. .....; graphic recorder rolls .....;

special reports, etc. .....

.....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet		222
Number of positions checked		11
Number of positions revised		1
Number of soundings revised (refers to depth only)		0
Number of soundings erroneously spaced		—
Number of signals erroneously plotted or transferred		0
Topographic details	Time	0
Junctions	Time	0
Verification of soundings from graphic record	Time	—

Verification by R.D. Goodrich .....Total time 20 hrs. Date 9/26/46

Reviewed by R.H. Carstens ..... Time 1.5 hr. Date 11/4/46

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 6974 W.D.

FIELD NO. EX 2400

Alaska-Aleutian Ids., Shemya I., Alcan Cove
Surveyed in June 1944 Scale 1:2,400
Project No. CS-218

Soundings: Control:

Handlead Sextant fixes on shore signals

Chief of Party - R. D. Horne
Surveyed by - G. R. Shelton and H. O. Fortin
Protracted by - C. A. J. Pauw
Soundings plotted by - C. A. J. Pauw
Verified and inked by - R. D. Goodrich
Reviewed by - R. H. Carstens, November 4, 1946
Inspected by - H. W. Murray

1. Shoreline and Signals

The shoreline and signals originate with planetable survey T-7961b (1944) before revision of shoreline from air-photographs. Subsequent destruction by natural causes of piers and breakwaters makes the present shoreline obsolete for charting purposes. A detailed statement of the latest available topographic information in this area is given in the review of H-6873 (1945), par. 1.

2. Adjoining Surveys

The present survey makes a satisfactory junction with H-7020 W.D. (1944) on the north.

3. Comparison with Contemporary Surveys

H-6938 (1943) 1:10,000
H-6975 (1944) 1:2,400

Present effective depths are in harmony with the soundings of these hydrographic surveys.

However, soundings taken the following year on H-6873 (1945) reveal that shoaling of 2 to 5 ft. had occurred over considerable portions of the bottom. The present survey is superseded for charting purposes except for certain detached soundings carried forward to H-6873 (1945). (See par. 5)

4. Comparison with Chart 9125 (Latest print date 3/31/45)

The charted depths do not conflict with the effective depths of the present survey except the 25 feet sounding (4¼ fms.) charted in lat. 52° 44' 12.5", long. 174° 04' 38" from Bp. 38297 (1944). This sounding falls in depths of 30 feet (smooth bottom) on H-6873 (1945). The 25 was cleared with an effective depth of 28½ ft. and is considered disproved.

5. Condition of Survey

Extensive breakwaters were constructed at the outer entrance of Alcan Cove during the war. These breakwaters were constructed of loose-rock material, and because of the heavy storms in this region, these structures are being destroyed and the material distributed over a large area of bottom.

The wire drag survey was compared with hydrographic survey H-6873 (1945), an extensive survey made the following year on a scale of 1:2,400. As a result of this comparison the present wire drag survey H-6974 W.D. is superseded by H-6873 (1945).

6. Compliance with Project Instructions

The present survey, as it was originally accomplished, adequately complied with the Project Instructions.

7. Additional Field Work Recommended

No additional work is recommended.

Examined and approved:

Chief, Nautical Chart Branch

Chief, Division of Charts

Chief, Section of Hydrography

Chief, Division of Coastal Surveys

HWM

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

21 January 1946

~~Division of Hydrography and Topography~~:

Division of Charts: Attention: H. W. MURRAY

Plane of reference approved in
3 volumes of ~~sounding~~ records for
wire drag

HYDROGRAPHIC SHEET 6974

Locality Alcan Cove, Shemya Island, Aleutian Islands, Alaska

Chief of Party: R. D. Horne in 1944
Plane of reference is mean lower low water, reading
5.0 ft. on tide staff at Alcan Cove
6.3 ft. below B. M. 1

Height of mean high water above plane of reference is 3.4 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

NAUTICAL CHARTS BRANCH

SURVEY NO. H6974 WIRE DRAG

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1-22-46	9198	J.M.A.	Before ~~After~~ Verification and Review Examined, no correction made. Area greatly changed by storms after this survey.
2-4-46	8865	J.M.A.	Before ~~After~~ Verification and Review
2-7-46	9125	HJR	Before ~~After~~ Verification and Review No corrn made re above comment. Charted depths appear less than drag depths in many cases.
5/24/49	3375	J.T.W.	~~Before~~ After Verification and Review Area changed by storms - survey not used
10/6/49	9125	SAMcGann	Before (After) Verification and Review area changed by storms. Applied thru H6873(1945)
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.